California Regional Water Quality Control Board
North Coast Region

Cleanup and Abatement Order and Request for Technical Reports
No. R1-2002-0085

for

Scotia Pacific Company LLC and
The Pacific Lumber Company

North and South Forks Elk River

Humboldt County

The California Regional Water Quality Control Board, North Coast Region (hereinafter RWQCB), finds that:

1. Scotia Pacific Company LLC (Scopac), a subsidiary of MAXXAM, Inc., owns timber and timberland in the Elk River watershed, a tributary to Humboldt Bay. The Pacific Lumber Company (PL), also a subsidiary of MAXXAM, Inc., is the Licensed Timber Operator for many of the Timber Harvesting Plans (THPs) submitted by Scopac. Scopac and PL are hereinafter collectively referred to as the "Discharger."

2. The Discharger conducts timber harvesting, forestry management, road construction and maintenance, and related activities on the lands of the Elk River watershed within its ownership.

3. The Elk River watershed is listed as an impaired water body under section 303(d) of the Clean Water Act due to sediment. In addition, the Elk River watershed is one of five watersheds deemed by California Department of Forestry and Fire Protection (CDF), the California Department of Fish and Game (DFG), the California Division of Mines and Geology (now California Geologic Survey, or CGS), and the RWQCB as being significantly cumulatively adversely impacted due to sediment with timber harvesting a contributing factor.

4. The North and South Fork Elk River provides domestic and agricultural water supply for approximately twenty residents adjacent to the stream. The North and South Fork Elk River support coho salmon, chinook salmon, steelhead and cutthroat trout. Coho salmon, chinook salmon, and steelhead trout are listed as threatened species in this area pursuant to the federal Endangered Species Act. Residents of the North and South Fork Elk River have expressed concerns about stream filling with sediment, adverse impacts to domestic and agricultural water supplies and increased frequency of flooding. Public access to the Headwaters Forest provides water contact recreation and non-contract water recreation for hikers adjacent to the South Fork Elk River.

5. The beneficial uses of the Elk River and their tributaries include:

   a. municipal and domestic supply
   b. agricultural supply
   c. industrial service supply

d. groundwater recharge
e. water contact recreation
f. non-contact recreation
g. commercial and sport fishing
h. cold freshwater habitat
i. wildlife habitat
j. rare, threatened and endangered species
k. migration of aquatic organisms
l. spawning, reproduction and/or early development
m. estuarine habitat

6. On June 21, 2002, the Executive Officer issued an Order under Section 13267 of the California Water Code directing the Discharger to submit a technical report to identify early abatement actions for the Elk River watershed which could be implemented prior to completion of the water quality attainment strategy (Total Maximum Daily Load – TMDL) underway for sediment impairment. The technical report was to consider early abatement actions which, alone or in combination could involve:

   - Limitations on threatened discharges associated with implementation of new timber harvest plans;
   - Limitations on existing or threatened discharges associated with road maintenance and repairs;
   - Stabilization of existing or threatened discharges associated with unstable slopes or landslides; or
   - Other appropriate soil discharge prevention and/or cleanup actions.

   The technical report was due on July 22, 2002, and was to include a schedule of implementation for the identified activities, including measures, which would be taken during the summer of 2002 prior to the winter rainy season. The Discharger submitted a timely response which included a summary of mitigation measures contained in the Habitat Conservation Plan (HCP) and anticipated THPs for sediment controls. The submittal did not contain a time schedule beyond that for when THPs would be implemented.

7. The Discharger reports that the RWQCB staff and several other state and federal agencies have commenced a watershed analysis of Elk River with target completion dates of the winter of 2002-2003. This analysis could provide additional information on appropriate cleanup and abatement activities for the watershed. Accordingly, this Order is a preliminary Order to address a selection of known problem areas in a timely fashion, and may be revised, or supplemented with additional Orders, as further information is developed.

8. The Discharger has implemented road-related sediment reduction strategies under the HCP to reduce sediment deliveries from roads. The intent of these strategies is commendable, and can be effective when properly implemented. Proper implementation includes use of effective erosion controls during the implementation of the sediment reduction strategy(ies).

9. The Discharger is also implementing sediment control strategies associated with timber harvesting under the HCP that include abatement of pre-existing problems of threatened discharges to waters of the State. These reductions in threatened discharges can, over the long term, prevent future sediment delivery. In the short term, however, discharges associated with timber harvesting are delivered in the present time, while these sediment reductions prevent delivery at some future unknown time dependent on imminence of the threatened discharge. Some threatened discharges may never be delivered to the stream, but known discharges associated with timber harvesting occur during THP implementation.

10. The RWQCB staff have observed road related debris slides at two locations within the Bridge Creek drainage that have resulted in soil discharges to Elk River tributaries. Aerial photograph interpretation, the road condition, natural revegetation, and stream condition indicate the debris slides are fairly recent[1]. The hillside voids created by these two debris slides are estimated to be 49,000 cubic yards[2]. A significant portion of this material has been deposited in West Fork Bridge Creek and potentially transported to North Fork Elk River.

    The CDF, DFG and the RWQCB staff observed the discharge of earthen materials and organic debris to the North Fork Elk River and its tributaries from numerous THPs in the recent past, including, but not limited to, the following THPs:

THP	Agency	Location	Date
1-95-097 HUM	RWQCB	Slide to West Fork Bridge Creek	9/9/97
1-93-068 HUM	DFG	Slide to Bridge Creek	12/12/97
1-94-334 HUM	DFG	Road failure to Bridge Creek	12/12/97
1-96-406 HUM	CDF RWQCB	Appurtenant road 15 failure to tributaries to Little North Fork Elk River	11/13/98

11. The Discharger submitted a report titled *Sediment Source Investigation and Sediment Reduction Plan for the North Fork Elk River Watershed, Humboldt County, California* (PWA Report) in July 1998 in compliance with Cleanup and Abatement Order No. 97-115. The PWA Report states, "Landslides (exclusive of road-related slides measured during the road inventory) are the most important source of sediment in the basin, comprising an estimated 55% of the total volume of material delivered to stream channels during the period of record." As such, mitigation of existing landslides and prevention of new landslides (hillslope or road related) is a priority.

12. As mentioned above in Finding 3, several agencies have determined that Elk River is significantly cumulatively adversely impacted due to sediment with timber harvesting a contributing factor. The discharge of soils to Elk River and its tributaries from timber management activities is well documented in the PWA Report, a Geo Engineers report dated February 19, 2002, and several THP inspection reports.

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[1] According to the Pacific Watershed Associates review of aerial photographs, the road was constructed between 1974 and 1987. Further, that one slide appeared between 1974 and 1987 and the second slide appeared between 1994 and 1997.

[2] Estimated volumes are based on approximate dimensions presented in a February 19, 2000 geology report produced by Geo Engineers for THP 1-01-030 HUM.

13. The discharges described above have caused and permitted excess sediment to enter the Elk River and its tributaries. Excess fine sediment has been shown to detrimentally affect spawning gravel for fish and reduce survival from egg to emergence stages, by reducing intragravel oxygen, gravel permeability and entombing fish fry within gravel interstices. Increased sediment and organic material can also produce tastes and odors offensive to the senses, and has increased frequencies for the maintenance and replacement of water heaters, plug pray nozzles on agricultural equipment and water treatment facilities, and interfered with surface water supply intakes. Increased turbidity to fine sediments provides a medium to promote bacteriological growths and reduces the effectiveness of water disinfection for domestic water supply. Increased bedload reduces stream pool size and the volume of aquatic habitat for fish and macorinvertebrates and increases the rate of flooding of adjacent lands.

14. The PWA Report identifies 543 sites that are most likely to yield sediment to stream channels if erosion prevention work is not completed, recommends these sites for treatment and states these sites are at locations where cost-effective work can be accomplished. The PWA Report goes on to develop a road priority methodology that targets high priority roads (roads with the greatest number of sites) and which maximizes equipment efficiency by reducing the movement of equipment within the watershed. This approach appears to differ significantly from the THP by THP approach outlined in the Discharger's July 22, 2002 submittal.

15. The Discharger has discharged waste, particularly sediment, into waters of the State in violation of the Basin Plan, and has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into unnamed tributaries to the North Fork Elk River and into the North Fork Elk River, and has threatened to cause or permit waste to be discharged into unnamed tributaries to the North Fork Elk River and into the North Fork Elk River. Such waste has been and probably will continue to be discharged into the waters of the State, where it has created or threatens to create a condition of pollution or nuisance. Winter rainfall/runoff threatens to exacerbate the discharge unless and until the waste is cleaned up. The effects of the waste will also continue until the waste is cleaned up by the Discharger or flushed out by natural processes. These conditions and activities trigger the provisions of Water Code section 13304.

16. The road-related sediment reduction strategies under the HCP identified by the Discharger would allow road-related sediment discharges to continue until the THPs are implemented. This would result in ongoing discharges for a period of time that may comply with the HCP, but does not comply with the Basin Plan and does not adequately protect water quality and related beneficial uses.

17. The technical reports required by this Order are necessary to ensure that the sediment discharges identified above are properly abated and/or properly prevented from additional discharge.

18. This is an enforcement action by a regulatory agency, being taken for the protection of the environment, and is exempt from the provisions of the California Environmental Quality

Act (Public Resources Code, Section 21000 et seq.) in accordance with California Code of Regulations, Title 14, Section 15321.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to California Water Code Sections 13267(b) and 13304, the Discharger shall:

1. Conduct all cleanup and abatement work under the direction of a registered civil engineer or certified engineering geologist or registered geologist familiar with erosion control and slope stabilization work.

2. Prepare and submit by September 3, 2002, a workplan, for the concurrence of the Executive Officer, to conduct corrective actions on roads identified in the PWA Report, Table 13, and any new sediment source sites identified since issuance of the PWA Report. This workplan shall also include a time schedule, detailing the month and year for initiation and completion of current and future corrective actions and list the corrective actions completed to date. This time schedule shall substantially accelerate to the maximum extent feasible the rate of corrective actions occurring each year beyond that scheduled in the HCP.

3. Prepare and submit by October 4, 2002, an itemized report identifying all options and preferred alternatives for the remediation of each road related and non-road related landslide contained or referenced in the PWA Report. The itemized report shall include a time schedule for implementation and a list of corrective actions completed to date. This time schedule shall substantially accelerate to the maximum extent feasible the rate of corrective actions occurring each year beyond that scheduled in the HCP.

4. Prepare and submit by October 4, 2002, an assessment of in-stream soil deposits in Bridge Creek and the Little North Fork Elk River. The in-stream assessment shall include, but not be limited to, deposited soil volumes, causal mechanisms, potential remediation activities, and a time schedule for implementation. For the purposes of this Order, in-stream shall be defined as bankfull width or the channel migration zone, which ever is greater. Bankfull width and channel migration zone are defined in the Discharger's HCP.

Ordered by _____
Susan A. Warner
Executive Officer

August 1, 2002